

Date: Fri, 7 May 93 07:42:02 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #553
To: Info-Hams

Info-Hams Digest Fri, 7 May 93 Volume 93 : Issue 553

Today's Topics:

ARRL Bulletin 51 ARLB051
Call for opinions: 9913 vs. CQ-FLEXI
Cellular Scanner
German Ham License
How to layout a PCB???

Kenwood 741 Out of Band Problem
rec.radio.amateur.misc Frequently Asked Questions (Part 1 of 3)
Where Can I FTP SuperMorse From?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>

Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>

Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 7 May 93 08:30:16 GMT
From: ogicse!uwm.edu!zaphod.mps.ohio-state.edu!mstar!n8emr!
bulletin@network.UCSD.EDU
Subject: ARRL Bulletin 51 ARLB051
To: info-hams@ucsd.edu

=====

| Automatic relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 |
=====

ZCZC AG92
QST de W1AW
ARRL Bulletin 51 ARLB051
>From ARRL Headquarters

Newington CT May 6, 1993
To all radio amateurs

NOVICE EXAMS BY VECS

The FCC has placed Novice Class examinations under the Volunteer Examiner Coordinator program. As with other class amateur license exams, responsibility for both preparation and administration of Novice exams will lie with the VEC system, in the interest of integrity, simplification and efficiency, the FCC said today.

The commission also will allow recovery of out-OF-POCKET costs for coordinating and administering Novice examinations.

The examination elements required for the Novice license are already being administered in the VEC system because they are also requirements for other classes of amateur operator licenses.

The FCC said that placing Novice examinations under the VEC system would avoid confusion caused by having two different systems result in fewer errors in exam administration and in paperwork (including allowing simplification of the FCC Form 610) and improve the availability of overall data on examinations.

This action, in PR Docket 92-154, was taken May 3. No effective date for implementation was announced.

NNNN

Date: 7 May 93 14:09:54 GMT
From: ogicse!emory!europa.eng.gtefsd.com!howland.reston.ans.net!
usenet.ins.cwru.edu!cleveland.Freenet.Edu!co128@network.UCSD.EDU
Subject: Call for opinions: 9913 vs. CQ-FLEXI
To: info-hams@ucsd.edu

I have four runs of 9913 going around my rotor right now and have been using 9913 that way since 1981. The only time I ever lost a cable was when I got water in one because of a poor seal at the coax fitting.

--
JIM MARTIN W8AC
co128@cleveland.freenet.edu

Date: Fri, 7 May 1993 08:37:08 GMT
From: pa.dec.com!nntp2.cxo.dec.com!nuts2u.enet.dec.com!little@decwrl.dec.com

Subject: Cellular Scanner
To: info-hams@ucsd.edu

ez006683@othello.ucdavis.edu (Daniel D. Todd) writes:

>If all receivers that can automatically switch between more than 3
>channels and hear the cell band are illegal (or will be next year) to
>produce. What about the phones themselves were they exempted? They can

Or cordless phones that offer 10 channel selection. Must be others such as public service equipment, all kinds of possibilities. Who ever said laws had to make sense or be enforceable?

73,
Todd
N9MWB

Date: Fri, 7 May 1993 07:58:01 CET
From: agate!howland.reston.ans.net!ira.uka.de!gmd.de!dearn!esoc!wkoehler@ames.arpa
Subject: German Ham License
To: info-hams@ucsd.edu

In article <C6MLAM.CBF@news.iastate.edu>, njohnson@sysad.cnde.iastate.edu (Neil Johnson) says:

>
>I will be going on a Trip to Germany soon. Is there anyway I can get a y
>temporar
>license so that I can operate while I'm there?
>

There certainly is, provided you're not going within the next 2 or 3 weeks.
Write to the DARC (the German equivalent of the ARRL) and they'll arrange things for you:

Deutscher Amateur Radio Club
P.O.Box 1155
Lindenallee 6
D-3507 Baunatal
GERMANY
Tel. +49-561-949-880

73 & DX, Wolf.
DL3ZBJ, AB6EL, VK6BGV.
There is nothing in the world that gives such a zest to life
as the possession of a hobby, and the power of indulging it.
Jessie Couvreur ('Tasma') 1848 - 1897

Date: Thu, 6 May 1993 19:30:34 GMT
From: elroy.jpl.nasa.gov!sdd.hp.com!hpscit.sc.hp.com!hplextra!hpcss01!capella!
jholly@ames.arpa
Subject: How to layout a PCB???
To: info-hams@ucsd.edu

Does any one have a suggestion as to where to find info on laying out a pc board? Not so much as the CAD programs availiable, but given a schematic, how does one figure out how to put what gizmo where and how one goes about making the connections. Or is that something like UN*X - you just got to know, son.

Jim, WA6SDM
jholly@cup.hp.com <--- email here!!

Date: 7 May 93 05:52:47 GMT
From: ogicse!uwm.edu!zaphod.mps.ohio-state.edu!sol.ctr.columbia.edu!news.kei.com!
ssd.intel.com!usenet@network.UCSD.EDU
Subject: Kenwood 741 Out of Band Problem
To: info-hams@ucsd.edu

I've been struggling with this on my 741 for about a year now -- and even sent it back to Kenwood under warranty for a complete check-out. In our area we have a huge amount of data radio on 520+ MHz (like the local transit system -- always guaranteed always to be somewhere nearby!); 800-900 MHz; as well as TV cable audio -- and all of this could actually be heard intelligibly if you listened closely on the UHF of my 741.

In addition to what has been previously posted, we've done some side-by-side comparison of several 741s in the last couple of months and learned:

1. Not all models are equal, and newer rigs (higher serial numbers) have apparently had some of the sensitivity narrowed in UHF (but the basic problem is still there).
2. Not all CTCSS tone boards are equal -- with some not decoding correctly and reliably. We found that Kenwood would replace defective modules when the problem was provable WITHIN the amateur bands, but didn't have any sympathy when they would not reliably decode above the ham bands. A number of the boards did not decode when used above 450 MHz.

HOWEVER... This evening we found a partial solution on the UHF sensitivity problem: Inadvertently, we found that a Comet Duplexer -- placed between the antenna and the 741 -- will limit nearly all of the intermod and noise in the UHF receiver. Previously marginal stations now

punch through, and several repeaters that I didn't even know where there are now audible.

How it works: on the UHF side of the duplexer, it bandpasses everything up to 500 MHz. This severely limits the susceptibility of the 741's UHF receiver to pull in extraneous signals (like all the intermod and various harmonic trash) above amateur. The result is very clean UHF reception, including some of the public safety frequencies in the 460-464 area.

In other tests with the duplexer in line, we found that the cross-band repeat of the 741 actually worked better with a Larson dual-band antenna and the duplexer instead of separate 440 and 144 antennas (as I had it rigged before). Why? The separate antennas are only 3 feet apart (I'm guessing 20 dB separation), but the duplexer specs are 60 dB of separation! I'm not a salesperson for Comet, but I have been convinced. I recommend this for anyone with a 741 or considering buying a 741. Not cheap, but a workable solution.

So, no more UHF noise and intermod; less de-sense when in cross-band repeat; one less antenna on the roof. I like my 741 again.

David, N7UUK

Date: 7 May 93 09:43:03 GMT

From: rtech!amdahl!amdahl!uts.amdahl.com@decwrl.dec.com

Subject: rec.radio.amateur.misc Frequently Asked Questions (Part 1 of 3)

To: info-hams@ucsd.edu

Posted-By: auto-faq 2.4

Archive-name: radio/ham-radio/faq/part1

Revision: 3.7 02/19/93 17:18:18

Rec.radio.amateur.misc Frequently Asked Questions

Part 1 - Introduction to the FAQ and Amateur Radio

This is a regular posting of frequently-asked questions (FAQ) about Amateur Radio, also known as Ham Radio. It is intended to summarize some common questions on the rec.radio.amateur.misc newsgroup and Info-Hams mail list as well as to help beginners get started.

Please provide a copy of the FAQ to any new or soon-to-be Hams you know.

Regular FAQ postings can help save network bandwidth and maintain a good signal-to-noise ratio in the newsgroup. However, they can't do it alone - you, the reader, have to use them. If you are a new user, please print and review

the FAQ articles and look at the instructions in the news.newusers newsgroup before posting any articles. If you are an experienced user, please help by refraining from answering frequently-asked questions on the newsgroup if they are already answered by the FAQ articles. Instead, send e-mail to the user who asked the question. (It will be helpful if you include the part of the FAQ that answers their question, but not the whole thing.)

The FAQ cannot always prevent people from posting repetitive questions. But even if hundreds of questions get posted, it saves you from having to answer them hundreds of times. Also, a friendly pointer to the FAQ in your first answer can help that person refer to the FAQ in the future. That is when we can begin to get a real savings of network bandwidth.

To reduce the size of each article, the FAQ information is posted in 3 parts:

Part 1 - Introduction to the FAQ and Amateur Radio

Part 2 - Amateur Radio Organizations, Services, and Information Sources

Part 3 - Amateur Radio Advanced and Technical Questions

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- ** How do I join MARS? (1/93)
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- ** I am looking for a specific ham, can anyone help me find him? (pre-4/92)
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--Rec.radio.amateur.misc Frequently-asked Questions-----Part 1--

** Introduction to the FAQ

* How to Contribute to the FAQ Articles

We accept suggestions from the Amateur Radio community. Please consider the following criteria:

- is it a commonly asked question?
- will its inclusion help reduce the usage of network bandwidth?
- how useful is it to beginning Hams or to the majority of Hams?

Contributions don't have to meet all of these but the minimum is one. We actually only ask that you consider these before contributing.

We can't necessarily include every question or every topic - the network simply doesn't have enough bandwidth to carry that much information. Besides, the point is that we're trying to conserve network bandwidth. You can find the locations of much more information by referring to the "Index to the rec.radio.amateur.* Supplemental Archives" posted monthly by Paul Schleck KD3FU.

If you suggest a question for this FAQ, please include the answer. You'll get credit for your contribution and you'll speed up the process of getting the information ready for distribution.

If you feel your contribution is sufficient to meet the considerations shown above, send it to hamradio-faq@amdahl.com so that it will reach all the FAQ coordinators: (listed in alphabetical order)

Diana L Carlson	KC1SP	dls@genrad.com	(Hudson, NH, USA)
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* Acknowledgements

All questions listed as modified "pre-4/92" are entirely Diana Carlson's work or her editing of a contributor's work. Diana established this FAQ. She is now one of the larger group that maintains it but we didn't want her effort to be lost in the crowd.

- * Notes on "Netiquette"

The `rec.radio.amateur.misc` newsgroup and Info-Hams mail list have a large daily volume of traffic. They can operate more efficiently if the following netiquette guidelines are followed. Please take them seriously.

- * If you are new to UseNet, the introductory articles in `news.announce.newusers` are required reading. Go to that newsgroup now.
- * When posting a followup article, ALWAYS try to minimize the number of lines of quoted material from the original article.
- * As a general rule when you try to determine whether to reply to someone by e-mail or with a followup article, remember to "praise in public, criticize in private." It's OK to disagree technically but be careful not to attack the person with whom you disagree. Also, be careful with your use of the word "you" when posting a follow-up article. Many unnecessary flame wars have started that way.
- * Use a descriptive subject. For example, a message subject of "Ham Radio" tells the reader NOTHING about the contents of your article since the whole newsgroup is about Ham Radio. Other examples of subjects which are so broad that they become useless could include, "Help," "A Question," "Antennas," or "Frequencies." Maybe "Books on Antennas?" or "Where can I find Repeater Frequencies?" would be better, for example. Remember, in a busy newsgroup a lot of users decide which articles to read from the subject line alone. If you post, don't deprive yourself of an audience!
- * Before answering a question, check if the FAQ adequately answers it or if someone else already answered it. If you have more to add, make sure to reference either the FAQ or the related articles.
- * If a user posts a question which is directly answered by the FAQ, there is no need to post an answer - the information is already available on the newsgroup. Instead, just send an e-mail message which politely explains where to find the FAQ. They will probably appreciate it if you include the answer to their question. (Don't send a "nastygram" - that would just discourage future participation.)
- * Pay attention to the size of your audience - use the "Distribution:" header. If you leave it blank, your message will go to every civilized country in the world and occupy disk space in all news systems in all those places. If that's what you intend, that's fine but make sure your article is relevant outside your country. (In particular, Hams should already know there is more to the world than just their own country.)
- * If you have an item for sale, please limit the distribution area so that, for example, an article about a radio for sale in New Jersey won't get to California or Europe. If you wish, you may cross-post your for-sale article to `rec.radio.swap`.
- * Software sources should be posted to either `alt.sources`,

`comp.sources.misc`, or `comp.sources.*` for a specific machine type. Software binaries should be posted to the appropriate subgroup of `comp.binaries`.

** What is Amateur Radio?

Amateur Radio is a non-commercial radio communication service whose primary aims are public service, technical training and experimentation, and communication between private persons. Amateur Radio operators are commonly called hams. Hams often communicate with each other recreationally but also provide communications for others at public events or in times of emergency or disaster.

** Who can become a ham in the United States?

Anyone who is not a representative of a foreign government can be an Amateur Radio operator in the USA. There are tests that you must pass to get a license, however the tests are not insurmountable.

** Where can I locate information and books on Amateur Radio?

Your local Radio Shack sells some ham radios and Amateur Radio license books. Books can also be obtained through the mail from ham radio organizations, such as ARRL in Newington, CT (203-666-1541) and W5YI in Dallas, TX (1-800-669-9594). There may be one or two ham radio stores in the local area (ie, within 50 miles). Try looking in the Yellow Pages under Radio Communications.

For the Novice license, get a Novice License manual, plus 5-word-per-minute Morse code tapes, costing around \$25. For the Technician license, get a combined Novice and Technician License manual, and an FCC Rules manual, costing around \$32. The FCC Rules manual is a good idea for Novice also, but not necessary, since the Novice License manual contains all the FCC Rules that are required for the Novice License.

The ARRL Education Activities Department has several programs to help amateurs (or prospective amateurs) to get started. Ask for a "New prospect package" available free of charge, from ARRL HQ, Educational Activities Department, 225 Main St, Newington, CT 06111.

** How much does it cost?

To take the Novice tests, it's free. To take the Technician or higher class tests, there is a small charge (around \$5-\$6 currently) to cover copying costs and running the testing sessions. The cost of a radio is really dependent on what you want to do. You can make your own radio and antenna for under \$150. You can buy a used single-band radio for \$150-\$300. Or you can buy a new multi-band multi-mode radio with all the doodads for \$300-\$3000. I'd suggest you learn more about ham radio, talk to local hams, find out what

you want to do with ham radio first.

**** Where can I take the tests?**

The Novice tests can be given by any two qualified hams of General class license or above. The Technician tests and all higher class license tests are given by three qualified Volunteer Examiners (VEs) who volunteer their time.

To locate an ARRL testing session in your area, you can contact ARRL at 203-666-1541 x282.

**** What are the tests like?**

First off, come prepared to VE sessions. Bring: TWO forms of ID, one of which has a picture on it; a calculator (if necessary); a pen and two pencils; the applicable examination fee (around \$5-\$6 for 1992); the original AND a copy of your current Amateur Radio license (if you have one); the original AND a copy of any CSCEs for tests you've already passed (if you have any).

Each of the written tests (Novice, Technician, General, Advanced, and Extra) are generally a multiple choice test of approximately one-tenth of the question pool. For example, if the question pool is approximately 300 questions, then the test will be a 30-question test. You need to get 75% correct to pass. Note that they truncate to determine the correct number of questions. That means for a 30 question test, you need to get 22 right, which is actually only 73.3%.

Once you've paid the small fee for Technician-Extra tests, it costs no extra to take another test, so I'd suggest you keep taking the next more advanced test until you fail. If you pass the written but not the Morse code (or vice versa) for a specific class license, you have up to one year to take the other test before you would have to retake the written test again. Note that some VEs will not allow you to take the written test unless you've first taken the Morse code test.

The Morse code test is a receiving test only. The test run 5 to 7 minutes. After the test, you are given a 10-question multiple-choice or fill-in-the-blank test. Passing grade is 7 or more. If you fail the 10-question test, the examiner team will examine your copy sheet to see if you have 1 minute of solid copy with no errors. For 5 wpm, that's 25 characters, for 13 wpm, that's 65 characters, for 20 wpm, that's 100 characters. If they can find 1 minute solid copy, you've still passed.

Hints on Morse code tests: Generally, it will be a standard QSO (conversation), and it MUST contain at least one of each of the following:

26 letters A-Z, 10 numbers 0-9, comma (,), period (.), slant or slash (/), question mark (?), double dash prosign (BT), end of message prosign (AR), end of contact prosign (SK).

The letters count as one character, all others count as two characters. There are a couple other prosigns which are worth knowing, but will not be on the test, like "I'm done talking, next" is K, "I'm done talking, back to you" is KN, "Please wait" is AS.

** What can I do with a ham radio license?

There are so many things, it's a difficult question to answer, but here's some ideas:

- * Talk to people in foreign countries.
- * Talk to people (both local and far away) on your drive to work.
- * Help in emergencies by providing communications.
- * Provide communications in parades or walkathons.
- * Help other people become hams.
- * Hook your computer to your radio and communicate by computers.
- * Collect QSL cards (cards from other hams) from all over the United States and foreign countries and receive awards.
- * Participate in contests or Field Day events.
- * Provide radio services to your local Civil Defense organization thru ARES (Amateur Radio Emergency Service) or RACES (Radio Amateur Civil Emergency Service).
- * Aid members of the US military by joining MARS (Military Affiliate Radio System).
- * Participate in transmitter hunt games and maybe build your own direction-finding equipment.
- * Have someone to talk to on those sleepless nights at home.
- * Receive weather pictures via satellites.
- * Build radios, antennas, learn some electronics and radio theory.
- * Talk to astronauts in space, or use the moon to bounce signals back to people on the Earth.
- * Experiment with Amateur TV (ATV), Slow-Scan TV (SSTV), or send still-frame pictures by facsimile.
- * Experiment with amateur satellite communications.

** What can't I do with an Amateur Radio license?

The most important thing you can't do is transact business of any kind over ham radio. Interference to other hams or services, as well as obscene, profane or indecent language is not tolerated and is illegal. Music and broadcasting are not allowed on ham radio. Some personal conversations may not be appropriate to Amateur Radio. Do you really want the whole world to hear about Aunt Mabel's hemorrhoids?

** I'm interested, who will help me?

There are hams who are willing to become "Elmers" (mentors, helpers) in your local area. Look around and ask local hams. Search out local

radio clubs. As well, some people have volunteered to be an Elmer over the Usenet. A list of UseNet Elmers and their e-mail addresses is posted to the newsgroup monthly. If anyone wants to be an Elmer, send e-mail to

elmers-request@unomaha.edu

** Should I build my own equipment or antenna?

"Homebrewing" is a fun and educational part of ham radio. It is a thrill to build your own transmitter and put it on the air. However, building your own receiver can be quite complicated; if you don't have electronics experience, you may want to buy a receiver instead. Most homebrew transmitters are QRP (transmit very low power). That's fine for an experienced ham with a very good antenna, but a Novice ham will just get frustrated. Your first rig, therefore should NOT be a home-brew.

Antennas can be much simpler projects than the transceiver, though some types are also quite involved. Most hams build their own antennas for base station use and buy antennas for mobile (car) use. Most beginner ham books describe how to build different types of antennas. Order of difficulty, from easiest to more difficult, for some common antennas are: wire dipole, Zepp, Yagi, Quad, and Log-Periodic. Books from many sources, including ARRL and several Hams, discuss antennas in depth.

When building or even understanding antennas, it is good to know the relationship between the antenna element length and the frequency or wavelength it is designed for. An antenna performs best at multiples of 1/4 of that wavelength, though 5/8 wave also has beneficial qualities. The wavelength is related to the frequency with the following formula:

$$\text{wavelength (in meters)} = 300 / \text{frequency (in megahertz)}$$

You do not need a huge antenna or tower like ones you may see around your neighborhood. Large beam antennas and 40-foot towers are very expensive. As a beginner, a simple dipole antenna is perfectly adequate. As you gain experience (and money :-), you may want to invest in something bigger.

If you can afford new rigs and antennas, there are many mail order stores that advertise in ham radio magazines. If you want to buy a used rig, the best place is at a "hamfest" (ham flea market). You should take along an experienced ham, since some of the used equipment may be inoperative, overpriced or poor quality. You can also answer ads in ham magazines or posted at ham radio stores, although often, by the time you call, the equipment has already been sold.

Date: Thu, 06 May 93 23:40:44 PDT
From: amdahl!grafex!ka6etb@uunet.uu.net
Subject: Where Can I FTP SuperMorse From?
To: info-hams@ucsd.edu

rlosee@unl.edu (Robert Losee) writes:

> Subject line says most of it. I've heard it's a good program but I
> can't find a reference for it even on our Archie server. Can someone
> post an FTP address for it?

This, and other wonderful amateur radio stuff may be found on HAM-server.

Send email to HAM-server@GRAFEx.Cupertino.CA.US

In the text of the message, place:

HELP
GET INDEX

73 de KA6ETB

End of Info-Hams Digest V93 #553
